

REMARKS

The Specification is amended to change the title and update the cross-reference to related applications.

Claims 1-23 and 30-38 were previously canceled.

Claims 24-29 are pending.

New Claims 39-46 are presented.

Claims 24 and 25 are amended to relate to polypeptides comprising a sequence having at least 70% and 90% sequence identity with SEQ ID NO: 2, respectively. Support for the amendments is found at page 16, lines 28-32, of the specification.

Claims 26, 27 and 29 are amended to indicate that the recited proteins are human proteins. Support for the amendment to Claims 27 and 29(b)-(d) is found, e.g., at page 39, lines 35-36, where WO 01/18051 is incorporated by reference. WO 01/18051 discloses the sequences of "human IL-B30 gene" at page 9, lines 7-9, and SEQ ID NO: 2, and discloses human IL-12p40 at page 8, lines 42-43 (citing Gately *et al.*, U.S. Pat. No. 5,650,492). Support for the amendment to Claims 26 and 29(a) is found at page 18, lines 30-31 (citing GenBank U03187, NM_005535, which are human sequences, as the sequence for IL12R β 1).¹

Claim 29 is further amended to delete previous element 29(c), and for clarity.

New Claim 39 finds support at page 16, lines 1-4, of the specification.

New Claims 40-41 find support at page 16, lines 28-32, of the specification.

New Claims 42-46 find support at Example II, at pages 44-45 of the specification.

Applicants believe that no new matter is added by way of amendment.

I. Objections to the Specification

The title has been amended in response to the objection to the title as not descriptive.

The Examiner requested that the priority information in the first sentence of the specification be updated. Applicants originally updated the priority information in a Preliminary Amendment dated 18 September 2003. Applicants further amend the

¹ A general statement of incorporation by reference is found at page 51, lines 20-22.

specification herein to reflect the fact that that the Application No. 09/853,180 has issued as U.S. Patent No. 6,756,481.

In view of the foregoing amendments, Applicants respectfully request withdrawal of the objections to the Specification.

II. Objections to the Claims

Claim 25 is objected to for being dependent on rejected Claim 24. In light of the amendments to Claim 24 and related argument (see below), Applicants believe that Claim 24 as amended is allowable, and thus the objection to Claim 25 is moot. Withdrawal of the objection to Claim 25 is respectfully requested.

III. Rejections Under 35 U.S.C. §112, Second Paragraph

Claims 24 and 26-29 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for recitation of the term "antigenic polypeptide." Claim 24 is amended to eliminate the term "antigenic polypeptide," rendering the rejection moot as to Claim 24 and also as to dependent Claims 26-29.

Claims 26, 27 and 29 are further rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for recitation of the term "IL-12R β 1 polypeptide or IL-B30/p40 polypeptide," which is characterized by the Examiner as "an arbitrary abbreviation." To the contrary, the name "IL-12R β 1" is, and was as of the priority filing date, well known to those of skill in the art to refer to a specific polypeptide. In the interests of clarity Applicants revise Claims 26 and 29 to refer to "human" IL12R β 1 polypeptide, which is supported by explicit reference to literature references referring to the human protein by this name, and GenBank Accession Nos.: U03187 and NM_005535, at page 18, lines 27-31 of the specification as-filed, which disclose the human IL12R β 1 polypeptide sequence.

Claims 26 and 27 are also amended to clarify that IL-B30 and IL12p40 comprise human polypeptide sequences. WO 01/18051 is incorporated by reference at page 39, lines 35-36 of the specification. WO 01/18051 is the first report of the human IL-23 complex, and thus discloses the human IL-B30/IL-12p40 complex.

The claims, as amended, refer unambiguously to human polypeptides whose structure (sequence) is fairly obtainable from inspection of the specification. An

applicant is free to be his own lexicographer, and the names provided for the various polypeptide chains are not "arbitrary abbreviations" because they have clear meaning in the context of the specification. M.P.E.P. §§2173.01 - 2173.02 and 2173.05(a)(I) - (II).

In view of the amendments to the claims, the fact that the term "IL12R β 1" was well known, and for the other reasons set forth above, Applicants respectfully request withdrawal of the rejection under §112, second paragraph for use of the phrase "IL-12R β 1 polypeptide or IL-B30/p40 polypeptide."

IV. Rejections Under 35 U.S.C. §112, First Paragraph

Claims 24 and 26-29 are rejected under 35 U.S.C. §112, first paragraph, as allegedly not enabling, and not describing, the full scope of "antigenic polypeptides" as claimed. Claim 24 is amended to eliminate the term "antigenic polypeptide," rendering the rejection moot as to Claim 24 and also as to dependent Claims 26 - 29.

In view of the foregoing amendment, Applicants respectfully request withdrawal of the rejections under §112, first paragraph for lack of enablement and written description.

V. Rejection Under 35 U.S.C. §102(b)

Claim 24 is rejected under 35 U.S.C. §102(b) as anticipated by Wang *et al.* (1992) *Genomics* 14:666. Claim 24 is amended to remove the phrase "antigenic polypeptide," thus presumably precluding interpretation of the claim as encompassing fragments as short as 6 amino acids. The claims as amended relate to polypeptides having at least 70% amino acid identity with SEQ ID NO: 2. The sequences of Wang *et al.* do not show the required sequence similarity, and thus do not anticipate the claims as amended.

In view of the amendments to the claims, Applicants believe that Wang *et al.* (1999) does not anticipate the pending claims. Applicants therefore respectfully request that the rejection of Claim 24 as anticipated 35 U.S.C. §102(b) be withdrawn.

VI. Double Patenting

Claim 29 is rejected on the ground of non-statutory obviousness-type double patenting over Claims 1 and 5 of commonly-assigned U.S. Patent No. 6,756,481.

Claim 5 of the '481 patent recites a kit comprising an antibody to an antigenic polypeptide of SEQ ID NO: 2. Previous Claim 29(c) related to a kit comprising an antibody that has binding affinity for SEQ ID NO: 2, but further requires a polypeptide having at least 70% sequence identity with SEQ ID NO: 2 and instructions for use.

Solely in order to facilitate prosecution, Claim 29 is amended to eliminate previous element 29(c) relating to an antibody that has binding affinity for SEQ ID NO: 2. Claim 29 is further amended, for clarity, by breaking out the individual elements of previous Claim 29(b) into new elements (b), (c) and (d).

In light of the amendments to Claim 29, Applicants respectfully request withdrawal of the rejection of Claim 29 on the ground of non-statutory obviousness-type double patenting.

Conclusion

Applicants' current response is believed to be a complete reply to all the outstanding issues of the latest Office action. Further, the present response is a bona fide effort to place the application in condition for allowance or in better form for appeal. Accordingly, Applicants respectfully request reconsideration and passage of the amended claims to allowance at the earliest possible convenience.

Applicant believes that no additional fees are due with this communication. Should this not be the case, the Commissioner is hereby authorized to debit any charges or refund any overpayments to DNAX Deposit Account No. 04-1239.

If the Examiner believes that a telephonic conference would aid the prosecution of this case in any way, please call the undersigned.

Respectfully submitted,

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